



SEQUENCE LISTING

<110> Nestec S.A.
<120> COFFEE MANNANASE
<130> 88265-4025
<140> 09/850,982
<141> 2001-05-08
<160> 12
<170> PatentIn version 3.1

```
<210> 1
<211> 1613
<212> DNA
<213> Coffea arabica
```

<400> 1
ttcattaaaa atggccttst ccaggagaag caatatcgc aacttcttt gctgcttcst
tgtatcatc gtcttatcgc tgcattggc aatcatata gttttttttt ctgttgcgg
ctttattcaa acaagaggaa cccgatttgt gtaggtggc taccatttt ttttcaatgg
gttcaactcc tactggatga tgcatttgtc agctgagcc a gtaaaatgc
caatgtatcc cgcgaggctg ctgctacagg gtttactgtt tgcggacat gggcattcag
cgatggtggc gatcgagctc ttcaaatgtc cccggagtc tatgtatgaac gtgtttca
ggcccttgc tttgtggat cggaaagcaag gaagttatggc gttactttaa tcttgagtc
gaccaacaac tacaaggaa ttggaggaag gacgcaatac gtgacgtggg ctaaaaatgc
cgagttacaa gtgaatagcg atgatgattt ttacacaaag aatgtgtca agggatatta
caagaatcac attaagaaag ttttgactag gatcaacaca attagtagag ttgtatataa
agatgttcca acagtcatgg catggagct aataaatgaa ctgtttggc aggttcgactt
ctccggaaaa accttaaatg ctgggttca agaaatggc aatgtgtca aatgtactgaa
taacaaacac cttctagaaa taggcatggc gggatttac ggagattca tgcaggc
aaagcagttac aatcctggat accaagtggg cacagattt atccaaata atccatataa
agagatagat tttgcaacca ttcatgcata ccccgatatt tgggttgttg gatagaggg
cggtgcacag atgatgttca tgagaagggt gatgaccagt cactccacag actttaagac
catacttaaa aaaccattgg ttctcgatga atttgggaaa tcaagtaaaag atccaggata
cagtttatat gccaggaggat cattcatggc cgcattttt ggtgatatst acaggtttgc
tagaagagga ggcattgcag gtggatttgtt tggcaatcc tggccggagg gaatgcaacc
gtacgcagat gggatgaaa ttgtttgtc tcaagaaacc tcaaccggac gaatcataag
ccaacagtc cgcacaaatga cttcactcga ccatatgagc agtaatagaa ccaattctca
aagcaacaaa ctgcgcattt caaaggagca gtgatcgtc ttggatggaaatg tctacttgag
tttqttcgta tgcacaaatc aagttatcaac cttatggaaatt tccattatat tggagttt
1380

ttagtcaagt tctagtaata ccgctggagt catgatagtt atgacagtaa taccgctgga 1440
gtcaagttct agtaataccg ttggagtcaa gttatgatag ttatttaaaa attagtattt 1500
tattacaaat ttgttattgt gtgagacttg tttattaagt aaatggaaaa gtcttatcat 1560
tattatcatt tgagaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 1613

<210> 2
<211> 427
<212> PRT
<213> Coffea arabica

<400> 2

Met Ala Phe Ser Arg Arg Ser Asn Ile Ser Asn Phe Ser Cys Cys Phe
1 5 10 15

Leu Val Ile Ile Val Leu Ser Leu His Cys Glu Asn His Ile Val Ser
20 25 30

Ser Ser Ala Ser Arg Phe Ile Gln Thr Arg Gly Thr Arg Phe Val Leu
35 40 45

Gly Gly Tyr Pro Phe Phe Asn Gly Phe Asn Ser Tyr Trp Met Met
50 55 60

His Val Ala Ala Glu Pro Ser Glu Arg His Lys Ile Ser Asn Val Phe
65 70 75 80

Arg Glu Ala Ala Ala Thr Gly Leu Thr Val Cys Arg Thr Trp Ala Phe
85 90 95

Ser Asp Gly Gly Asp Arg Ala Leu Gln Met Ser Pro Gly Val Tyr Asp
100 105 110

Glu Arg Val Phe Gln Ala Leu Asp Phe Val Val Ser Glu Ala Arg Lys
115 120 125

Tyr Gly Val His Leu Ile Leu Ser Leu Thr Asn Asn Tyr Lys Asp Phe
130 135 140

Gly Gly Arg Thr Gln Tyr Val Thr Trp Ala Lys Asn Ala Gly Val Gln
145 150 155 160

Val Asn Ser Asp Asp Phe Tyr Thr Lys Asn Ala Val Lys Gly Tyr
165 170 175

Tyr Lys Asn His Ile Lys Lys Val Leu Thr Arg Ile Asn Thr Ile Ser

180

185

190

Arg Val Ala Tyr Lys Asp Asp Pro Thr Val Met Ala Trp Glu Leu Ile
195 200 205

Asn Glu Pro Arg Cys Gln Val Asp Phe Ser Gly Lys Thr Leu Asn Ala
210 215 220

Trp Val Gln Glu Met Ala Thr Tyr Val Lys Ser Leu Asp Asn Lys His
225 230 235 240

Leu Leu Glu Ile Gly Met Glu Gly Phe Tyr Gly Asp Ser Met Pro Gly
245 250 255

Lys Lys Gln Tyr Asn Pro Gly Tyr Gln Val Gly Thr Asp Phe Ile Thr
260 265 270

Asn Asn Leu Ile Lys Glu Ile Asp Phe Ala Thr Ile His Ala Tyr Pro
275 280 285

Asp Ile Trp Leu Ser Gly Gln Ser Asp Gly Ala Gln Met Met Phe Met
290 295 300

Arg Arg Trp Met Thr Ser His Ser Thr Asp Ser Lys Thr Ile Leu Lys
305 310 315 320

Lys Pro Leu Val Leu Ala Glu Phe Gly Lys Ser Ser Lys Asp Pro Gly
325 330 335

Tyr Ser Leu Tyr Ala Arg Glu Ser Phe Met Ala Ala Ile Tyr Gly Asp
340 345 350

Ile Tyr Arg Phe Ala Arg Arg Gly Gly Ile Ala Gly Gly Leu Val Trp
355 360 365

Gln Ile Leu Ala Glu Gly Met Gln Pro Tyr Ala Asp Gly Tyr Glu Ile
370 375 380

Val Leu Ser Gln Asn Pro Ser Thr Gly Arg Ile Ile Ser Gln Gln Ser
385 390 395 400

Arg Gln Met Thr Ser Leu Asp His Met Ser Ser Asn Arg Thr Asn Ser
405 410 415

Gln Ser Asn Lys Leu Arg Asn Ser Lys Glu Gln
420 425

<210> 3
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotides provided by Eurogentec (Parc Scientifique due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Belgium).

<220>
<221> misc_feature
<222> (3)..(3)
<223> a or c or g or t/u

<220>
<221> misc_feature
<222> (12)..(12)
<223> a or c or g or t/u

<400> 3

ggnatggarg gnttytaygg

20

<210> 4
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotides provided by Eurogentec (Parc Scientifique due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Belgium).

<400> 4
ttttttttttt ttttt

15

<210> 5
<211> 17
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotides provided by Eurogentec (Parc Scientifique due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Belgium).

<400> 5
aaatctgtgc ccacttg

17

<210> 6
<211> 17
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotides provided by Eurogentec (Parc Scientifique due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Belgium).

<400> 6
gtaaaaacgac ggccagt

17

<210> 7
<211> 17
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotides provided by Eurogentec (Parc Scientifique due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Belgium).

<400> 7
caggaaacacg ctagac 17

<210> 8
<211> 21
<212> PRT
<213> Coffea arabica
<220>
<221> MISC_FEATURE
<222> (16)..(16)
<223> variable

<400> 8

Ser Phe Asn Phe Val Lys Thr Arg Gly Thr Glu Phe Val Met Asp Xaa
1 5 10 15

Arg Phe Leu Tyr Leu
20

<210> 9
<211> 10
<212> PRT
<213> Ccffeaa arabica

<400> 9

Thr Trp Ala Phe Ser Asp Gly Gly Tyr Arg
1 5 10

<210> 10
<211> 17
<212> PRT
<213> Coffea arabica

<400> 10

Glu Tyr Asn Pro Gly Tyr Sln Val Gly Thr Asp Phe Ile Ser Asn Asn
1 5 10 15

Arg

<210> 17
<211> 36
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotides provided by Eurogentec (Parc Scientifi
que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Belgium).

<400> 11

gtcttatccc tggatcccga aaatcatata gtttct

36

<210> 12

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotides provided by Eurogentec (Parc Scientifi
que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Belgium).

<400> 12

gtactctgca gactttctgg aagactgatc actgctcatt

40